

July 23.—Many of the species *Natica Montaguï.*

obtained the first day, together *Mangelia teres.*

with *Lima subauriculata.* — *purpurea.*

Chiton lævis.

Bulla Cranchii; very fine.

All the above shells were procured alive, except those specified as otherwise, and some of them are new to that locality.

I remain, yours most truly obliged,

W. W. WALPOLE.

On the Irritability of the Leaves of Drosera rotundifolia.

By Dr. MILDE.

Towards the end of June I placed on the middle of a strongly vegetating leaf of a plant of *Drosera rotundifolia* which I had had for a short time in a cup of moss in my room, four small flies of about the size of a pin's head. The insects remained nearly motionless upon it, and their efforts to escape from the sticky matter were ineffectual. After about five minutes I again looked at the leaf, when to my astonishment I saw that the glandular hairs of the anterior margin of the leaf, which had been previously extended horizontally, had turned back towards the surface of the leaf and partially covered the flies. I had no time until the following day to observe the leaf again carefully, when I found that the anterior margin and the sides of the leaf had turned over towards its middle and thus completely enveloped the flies. It was only after the lapse of five days that the margins of the leaf and hairs had returned to their places, so as to leave the dead flies lying free on the surface.—*Bot. Zeitung*, x. 540.

EMBRYOGENY OF ORCHIS, GESNERIA, AND OTHER PHANEROGAMIA.

Dr. Cobbold laid before the Edinburgh Physiological Society a brief account of some investigations into the embryogeny of *Orchis*, *Gesneria*, and other Phanerogamia. These observations, together with a preliminary account of the labours and opinions of Schleiden, Amici, Brown, Geraud, Griffith, Hofmeister, Meyen, Mirbel, Mohl, Dickie, and about forty others, formed the subject of an essay, written in the summer of 1849. Dr. Sanderson, who at the same time investigated this subject, has since published in the 'Annals of Natural History,' an admirable memoir on the embryogeny of *Hippuris vulgaris*, the facts there recorded being strikingly confirmed by what the author of this paper observed as occurring in the above genera. From a review of the whole matter, the following conclusions are to be drawn:—

1st. That, prior to impregnation, the ovule always contains an embryo-sac.

2nd. That the embryo-sac is commonly formed at the apex of the nucleus.

3rd. That in the interior of the embryo-sac there exists a fluid, more or less granular.

4th. That the sac frequently protrudes beyond the exostome (ovule tube,—Griffith).

5th. That in the interior of the sac, prior to impregnation, one or more cytoblasts, or embryonic vesicles, are formed.

6th. That their formation takes place by the aggregation of molecules (Amici, Meyen).

7th. That the cytoblasts, or embryonic vesicles, also contain a fluid more or less granular (globulo-cellular cambium,—Mirbel).

8th. That the pollen is always necessary for fertilization (apparent exception given by Smith).

9th. That the pollen, when applied to the stigma, sends out one or more tubes (prolongations of the intine), which contain granular matter (fovilla).

10th. That in most cases the union of the pollen-tube with the apex of the embryonic sac constitutes the very act of impregnation.

11th. That the result of this union is the formation of an embryo.

12th. That this formation takes place, either by the metamorphosis of one of the pre-existing germinal or embryonic vesicles under the dynamic influence of the fovilla (acting catalytically ?) ; or, as is more probable, by the union of the contents of the pollen-tube with that of a germinal vesicle, similar to what occurs in the conjugation of *Confervæ*. When two or more vesicles exist, as in *Orchis*, one only becomes fertilized, the remainder abortive.—*Proc. Edinb. Phys. Soc.*

METEOROLOGICAL OBSERVATIONS FOR JULY 1852.

Chiswick.—July 1. Fine: cloudy: slightly overcast. 2. Cloudy and fine. 3, 4. Very fine. 5. Excessively hot: thermometer higher in the shade than it has been for at least twenty-six years: lightning at night. 6. Very hot. 7. Cloudless: hot and dry. 8. Dry haze: sultry: clear at night. 9. Very hot. 10. Very fine. 11. Hot and clear. 12. Sultry. 13. Fine: lightning, with distant thunder at night. 14. Overcast: thunder: very hot: lightning, with rain at night. 15. Cloudy and fine: clear. 16. Slight haze: very hot: excessively heavy and constant rain at night. 17. Rain: cloudy and warm: clear at night. 18. Very fine: heavy clouds: clear. 19. Very fine. 20. Overcast. 21. Light clouds: very fine: clear. 22—24. Very fine. 25. Overcast: thunder: rain. 26. Cloudy and fine: clear. 27. Slight haze: very fine. 28—30. Very fine. 31. Heavy dew: very fine: cloudy.

Mean temperature of the month	67°·37
Mean temperature of July 1851	60·71
Mean temperature of July for the last twenty-six years ...	63·40
Average amount of rain in July	2·37 inches.

Boston.—July 1, 2. Fine. 3. Cloudy. 4. Fine: thermometer 84° at 5 P.M. 5. Fine: therm. 91° at 2 P.M. 6. Fine: therm. 86° at 3 P.M. 7. Fine: therm. 81° at 3 P.M. 8. Fine. 9. Fine: therm. 89° at 2 P.M. 10, 11. Fine. 12. Cloudy. 13. Fine. 14. Cloudy. 15. Cloudy: rain, with thunder and lightning early A.M. 16. Fine: rain, with thunder and lightning P.M.: therm. 86°. 17. Cloudy: therm. 86° 3 P.M. 18. Fine. 19—22. Cloudy. 23. Fine. 24. Cloudy. 25. Fine: rain P.M. 26. Cloudy: rain A.M. and P.M. 27, 28. Fine. 29. Cloudy. 30. Fine. 31. Cloudy.

Sandwick Manse, Orkney.—July 1. Bright: cloudy. 2. Rain: cloudy. 3. Bright: cloudy: fine. 4. Cloudy: clear: fine. 5. Bright: clear: cloudy: thunder and lightning. 6. Rain: cloudy: fine. 7. Hazy: fine. 8. Bright: fine: fog. 9. Hazy: showers: thunder and lightning. 10. Bright: cloudy. 11. Bright: clear: fine. 12. Bright: fine: cloudy: fine. 13, 14. Bright: fine: clear: fine. 15. Bright: fine: cloudy: fine. 16. Hazy: fine: clear: fine. 17. Cloudy: rain. 18. Bright: cloudy: clear: fine. 19. Hazy: cloudy: clear: fine. 20. Bright: cloudy: rain: fine. 21. Rain: cloudy: fine. 22. Bright: hazy: fine. 23. Bright: fine: cloudy: fine. 24. Drops: fine: cloudy: fine. 25, 26. Cloudy: damp. 27. Damp. 28. Cloudy: fine: cloudy: damp. 29. Fog. 30. Rain: fog. 31. Damp: cloudy: damp.—This month has been remarkably fine and warm.

Mean temperature of July for twenty-five previous years	54·79
Mean temperature of this month	61°·36
Average quantity of rain in July for six years	2·71 inches.